EXHIBIT 1

Odor Dispersion Model

Background: In 2015, MSD identified improvements to enhance its Mill Creek WWTP Odor Control Program, selecting Hazen and Sawyer to work closely with operators and engineers (an Odor Control Team) to better characterize and implement short and long term needs. As part of the enhancement program, the Odor Control Team identified and implemented operational controls that resulted in optimization and reduction of odor emission - that effort continues to be successful as the culture around odor control operations and troubleshooting improves. Working with a community advisory panel, MSD developed a goal of 0% emissions off site and conducted a comprehensive odor evaluation - this effort has resulted in quantifying odor emission sources from the WWTP from many sampling events from August through November 2015. In addition to the optimizations, there are some immediate capital improvements needed prioritized and working towards design or construction approval using the 2015 evaluation - they are: headworks and ferrous feed, septage receiving and solids handling phase 1 - these are determined to be top priorities for implementing enhanced controls as soon as possible based on the limitations of the current controls and the outcomes of the 2015 comprehensive sampling and odor evaluation.   As the 2015 evaluation is concluding, the second phase of the Odor Control Program will begin in parallel with development of an Odor Dispersion Model.

Purpose: As a parallel track to the efforts noted above, the Odor Dispersion Model shall be developed as a tool for MSD to evaluate and consider odor sources and control into the future. The Odor Dispersion Model shall be developed with the baseline data collected in 2015 and supplemented with additional data as necessary. The odor dispersion model will assist in the selection of future odor control mitigation strategies or capital improvements of the entire Mill Creek WWTP.

Summary of Scope of Work

Work included in this task order includes the following:
MSD anticipates using the Odor Dispersion Model to evaluate existing operations and future improvements.   The model will be developed and run as part of future evaluations, including supporting future BCEs, to provide data that could be used to support or enhance a project to maximize the mitigation of odors, upon completion of the model and QA/QC. It is anticipated that MSD will rely on expert services to assist in running scenarios with the model. However, long term, it is anticipated that this expertise will be brought in house to help facilitate the long term enhancement and achievement of the goal of zero emissions offsite. Model files will be turned over to MSD at completion of the project with training, operation and maintenance tools.

- **Task 100 – Gather Model Input Data** - Model input data will be gathered including existing odor sources, plant layout, weather data, receptor locations, and odor control criteria. Data from 2015 sampling efforts will be used for the baseline odor modeling. A technical memorandum will be developed to summarize the model input data and odor control criteria.

- **Task 200 – Develop Baseline Odor Dispersion Model** – Dispersion model will be developed with initial sampling data and available data gathered during Task 100. Additional sampling needs will be identified from the baseline dispersion model development. A memorandum will be developed to summarize the baseline model setup and initial results from the model.

- **Task 300 – Odor Sampling** – Additional odor sampling will be performed to supplement data gathered during 2015 sampling effort.

- **Task 400 – Update Dispersion Model and Evaluate Additional Improvements** – Dispersion model will be updated with additional data and used to evaluate odor impacts of existing facilities/controls and proposed improvements at the Mill Creek WWTP. A technical memorandum will be prepared to summarize task activities / findings and future recommendations.

Task 100 – Gather Model Input Data

The following information will be collected to order to set up the baseline odor dispersion model:

- Electronic drawings of the facility, including location and heights of all onsite buildings and delineation of the plant fence line. It is assumed that MSDGC will provide CADD or other electronic formats of the existing plant facilities.

- Source parameters and odor emission rates (H2S and odor strength) from all onsite odor sources, including all emission parameters (location, dimensions, flow rates, operational data, etc.). The emission rate information will be obtained based on the recent odor sampling conducted under the odor program and other recent sampling data. Additional odor monitoring needs will be identified.

- Meteorological data – five years of representative hourly National Weather Service (NWS) data from the nearest airport. This data is generally provided by the state regulatory agency (OEPA). On-site weather station data will also be gathered and compiled. In the event that appropriate data is not available, the meteorological data will be purchased.

- Terrain and receptor input – Terrain data of the surrounding area provided by United States Geological Survey (USGS) will be obtained. The implications of the complex terrain in the Price Hill area will be considered. A Cartesian receptor will be established out to 2 to 3 kilometers from the fence line (extent to be determined upon review of the site data). Receptors spacing around the fence line will be at 50 meter spacing. Receptors spacing from the fence line to one kilometer will be at 100 meter spacing. A 250 meter receptor spacing will be used from one kilometer to the end of the receptor grid.

- H2S and Odor Strength Criteria – The criteria to be used to evaluate the offsite impacts from the baseline facility sources and the effectiveness of the proposed controls will be established with input from MSDGC and CAP. These criteria will be based on standards consistent with accepted practices in wastewater odor control.

A technical memorandum that summarizes the proposed model input data, modeling approach, and identifies any gaps in the required data will be provided.

Task 200 – Develop Baseline Odor Dispersion Model

The "baseline" WWTP will be modeled using AERMOD with five years of representative meteorological data. The offsite impacts of individual sources at the facility and the overall facility impact offsite will be determined. The baseline odor results will be compared to the recent *OdoWatch* model results.

A technical memorandum that provides the results of the baseline modeling in tabular and graphical formats (e.g., H2S and odor strength isopleths) in order to evaluate the extent of the offsite impacts from the existing plant operations will be provided to MSDGC.

Task 300 Perform Odor Sampling

A maximum of 30 additional samples are anticipated to supplement the baseline sampling program, already performed.   The samples will be analyzed as follows:

a. St. Croix Sensory, Inc. laboratory will be utilized for odor panel testing to determine the D/T (Dilution to Threshold) value of each sample.

b. Mayfly Odor Laboratory will be utilized to analyze Tedlar bag samples for volatile organic compounds (VOCs) and volatile sulfur compounds (VSCs). Mayfly will compare sample constituents to individual compounds listed in Mayfly's odor library of over 260 organoleptically active compounds or odor marker compounds. Additionally, Mayfly's analysis results will report concentrations in parts per billion for all VOCs and VSCs detected in the samples.

c. Consultant will work with MSD and Consolidated Analytical Systems, or equal, to utilize multiple Gas Chromatographs for continuous monitoring for comparison to Mayfly Odor Laboratory Results.

Task 400 - Update Dispersion Model and Evaluate Additional Improvements

The AERMOD model of the plant will be revised to include proposed odor control upgrades and plant improvements. The offsite impacts of individual sources at the facility and the overall facility impact offsite under the proposed plant update will be determined. Any sources that result in offsite impacts above the odor criteria will be identified and evaluated for frequency, timing, etc.

Additional model runs, considering alternate control strategies will be performed. Up to 10 alternative model runs will be developed as part of this effort.

The results of the baseline and proposed plant improvement modeling will be summarized in a report. The report will also include recommendations for future improvements to further control odors from the Mill Creek WWTP.